# Windows Forms

## Building Smart Client Applications with the .NET Framework

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# Introduction

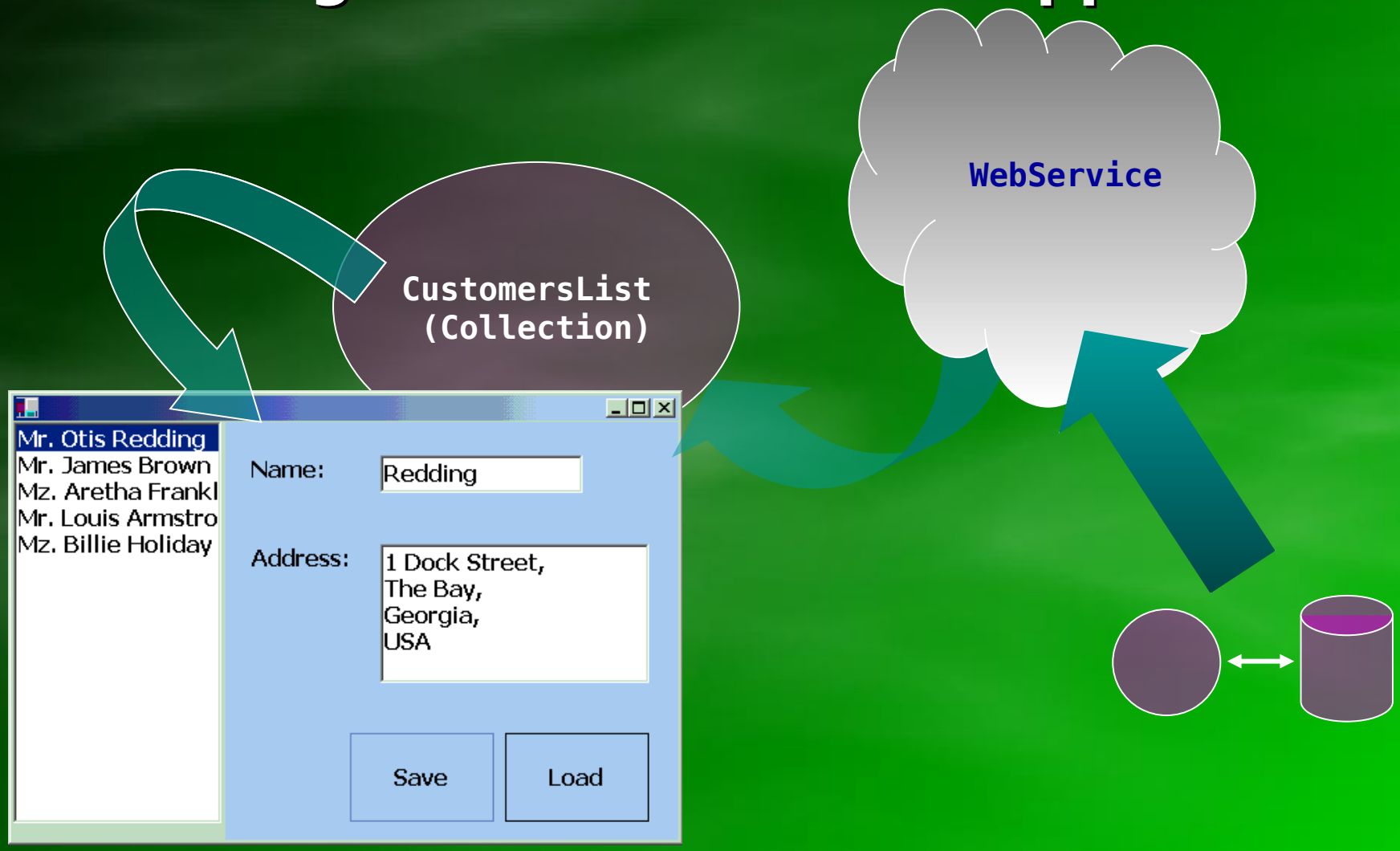
- An overview of Windows Forms
  - What is it?
  - Why?
  - Lots of Demos

# Windows Forms

- What is it?
  - A framework for building Windows applications that takes advantage of all the power of .NET Framework and the Win32® API
  - An architecture for controls and containers
  - RAD design time experience – Integrated designer support
    - .NET Framework built with design-time in mind
    - Design-time built using .NET Framework: VS .NET Property Browser, Server Explorer, Windows Forms Designer

# Demo

## Building a Windows Forms App



# Windows Forms

- Rich set of controls
- Advanced graphics support – GDI+
- “Money 2000” Flat look
- Advanced layout
- Visual forms inheritance
- Printing support
- Accessibility
- Extensible:
  - Extend and enhance the controls and framework
  - Easy to add design time behavior
  - Drop into direct Win32

# Demo

- Transparency
- Non-rectangular Windows
- GDI+

# Windows Forms

- Can host ActiveX® Controls
- International
  - Fully Unicode on Windows NT® and Windows® 2000
- Flexible licensing support

# The Smart Client

- “No Touch” deployment
  - Application isolation is the default
  - No registration required
  - Versioning – no side affects
  - Web based deployment
- Secure
  - Safe to run downloaded code
- Full integration with .NET Framework
  - Web Service aware
  - Data aware

# Security

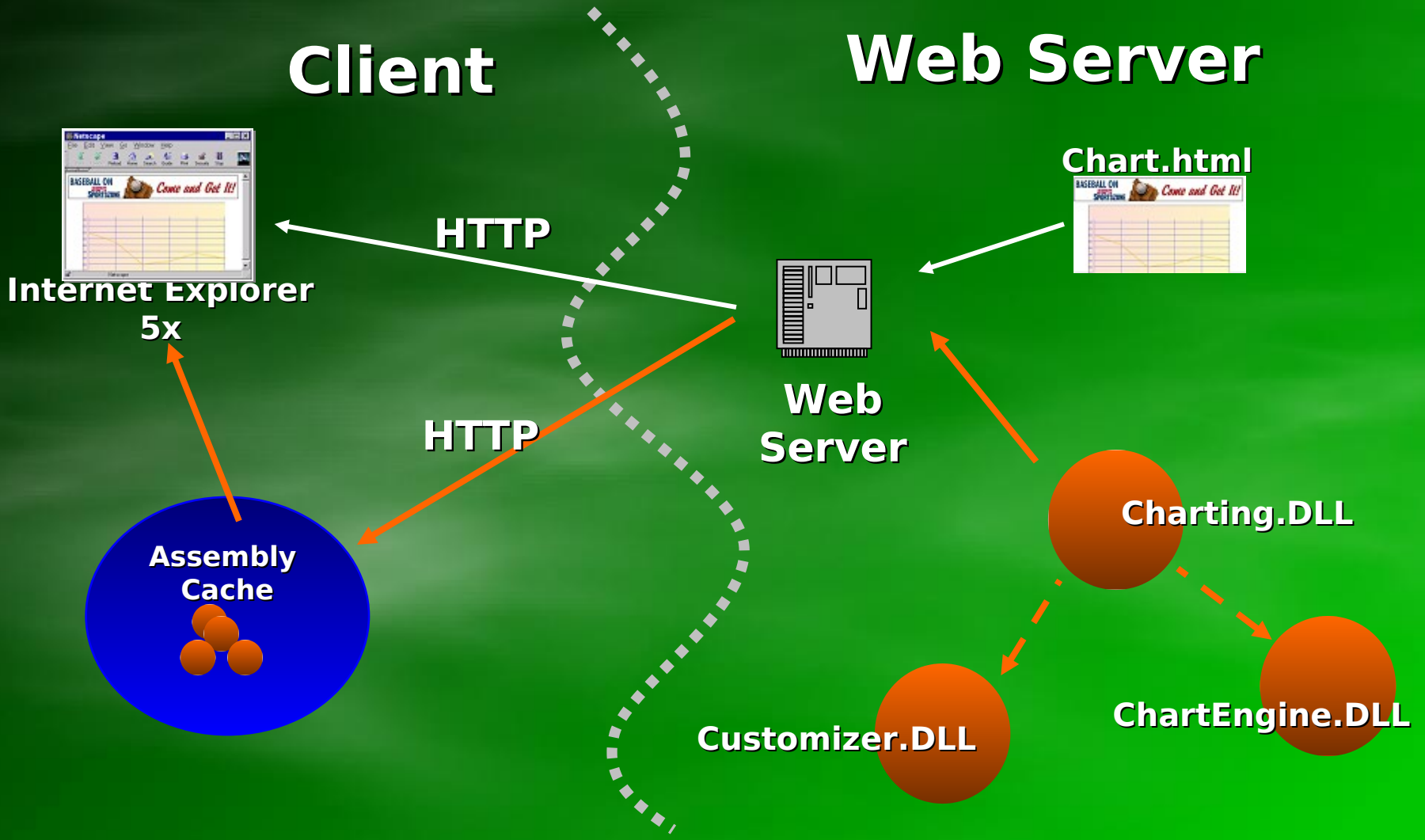
- Code access security makes Windows Forms controls safe

- Execution controlled by:
  - Permissions
  - Permission Sets
  - Code Groups (Zones)
  - Code groups have permission sets

# Browser Integration

- Controls can be hosted Internet Explorer 5x
- Low impact
  - No installation, registration or GUIDs
- Secure
  - Code access security prevents harm
  - No Internet Explorer security dialogs!
- Lightweight
  - “Hello World” ~ 3.5K
- Easily deployed
  - Dependent components are automatically downloaded

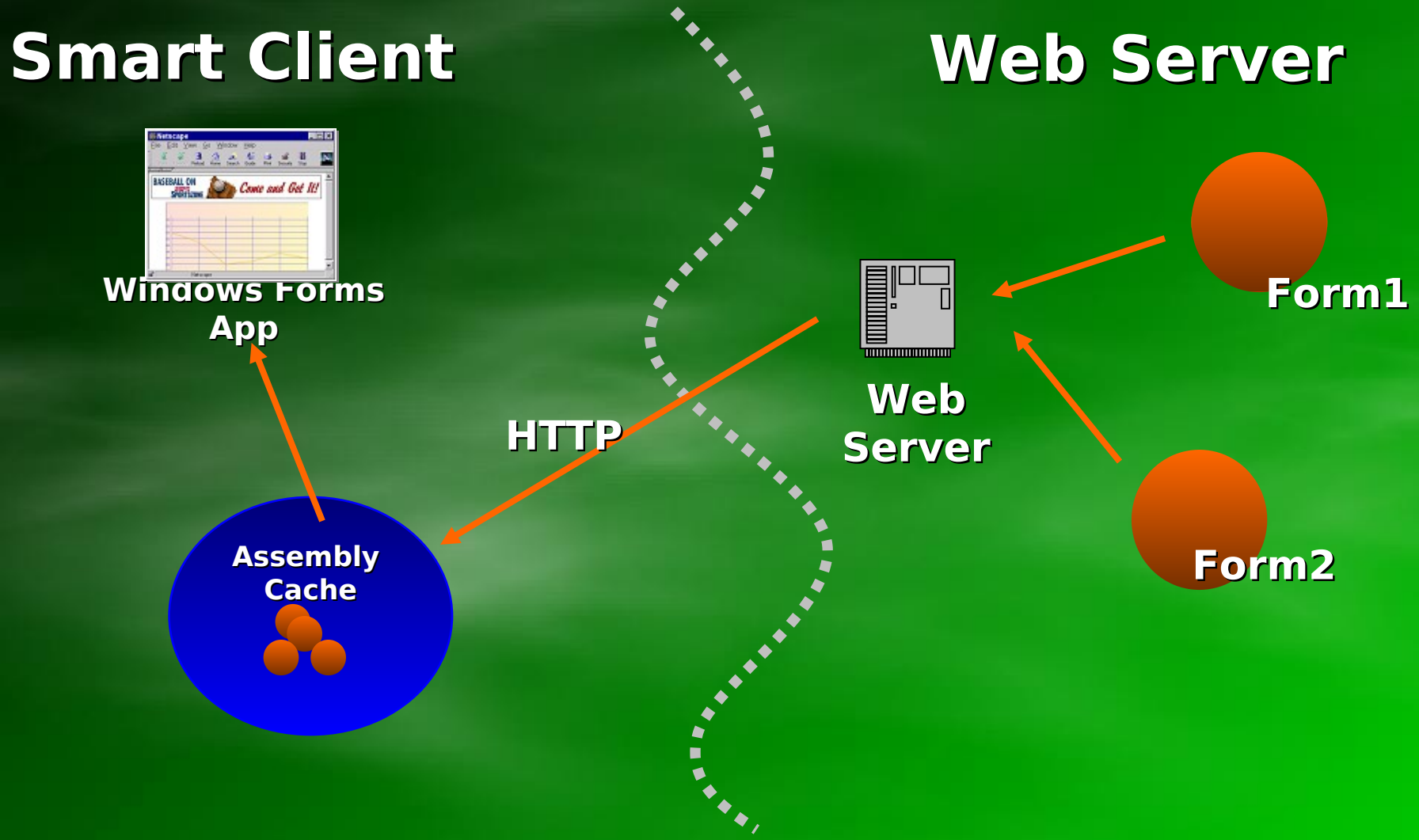
# Demo – Controls in the Browser



# The Smart Client

- "Auto" deployment
  - No installation
    - Use Assembly.LoadFrom
  - Stored in the Download cache
    - Only downloaded when updated
  - Dependent components are automatically downloaded
    - Application "trickles" onto the client

# Demo – Auto deployment



# Summary

- Windows Forms applications are easy to write and easy to deploy
- Windows Forms controls are secure, lightweight, and support hosting on web pages

# Resources

- Windows Forms Quick Start in the SDK
- http://www.gotdotnet.com
- MSDN Online
- MSDN magazine

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